## ALLEN COUNTY ACCESS MANAGEMENT PLAN

Prepared For:

# ALLEN COUNTY ENGINEER 1501 NORTH SUGAR STREET LIMA, OH 45801

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1501 NORTH SUGAR STREET LIMA, OH 45801

October XX, 2023

This Plan shall be reviewed no less frequently than every five (5) years unless otherwise approved by the Allen County Board of Commissioners.

**Reference:** State Highway Access Management Manual, Ohio Department of Transportation, Columbus, OH, July 2023.

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#### 1 INTRODUCTION

#### 1.1 Authority

Sections 5552.01 to 5552.11 and 5552.99 of the *Ohio Revised Code* (effective October 24, 2002) allow counties in the State of Ohio to regulate access to county and township roads in unincorporated areas of the county to promote traffic safety and efficiency and maintain proper traffic capacity and traffic flow. This Allen County Access Management Plan, hereinafter referred to as the Plan, adopted in accordance with these sections of the *Ohio Revised Code* by the Allen County Commissioners, presents these regulations. The Board of Allen County Commissioners adopted the Allen County Access Management Plan on February 15, 2005 by Resolution #83-05. On March 1, 2005 the Board of Allen County Commissioners appointed the Allen County Engineer to administer the Allen County Access Management Plan by Resolution #108-05.

It should be noted that these regulations apply only to county and township roads in the unincorporated portion of Allen County, and do not apply to roadways within municipal corporations or on the state highway system.

Guidelines for managing vehicular access to the state highway system have been established within the latest version of the *ODOT State Highway Access Management Manual*. **The ODOT District 1 office shall be contacted regarding permitting procedures and access management categories along the state highway system.** 

#### 1.2 Purpose

Access Management is the planning and implementation of strategies to provide standards for the type, design, location and frequency of driveways, intersecting streets, and other points of vehicular access to public roads for the purpose of preserving the functional integrity of the transportation system.

The implementation of an Access Management Plan provides a systematic method for the approval and design of new driveways, intersections, or other points of vehicular access to public roads. When access management techniques are applied, highway congestion is reduced, traffic delays are minimized, highway capacity is preserved and safety is enhanced.

Access management also has the ability to improve the business environment, by establishing a more desirable, attractive and safe location for employees, visitors and customers, and with the implementation of other enhancements, increases the sense of community.

It is the intention of the Allen County Engineer to implement proven engineering standards and policies to minimize the negative impacts associated with unregulated access. This plan will ensure that standards and policies are consistent and equitably applied, thereby reducing public and private investment to maintain or improve highway access and functional intent.

To maintain consistency, the Plan has been developed using the framework of the latest version of the *ODOT State Highway Access Management Manual*. Many of the standards, criteria and tables referenced in the ODOT manual have been directly inserted into this Plan.

#### 1.3 Examples of Access Management

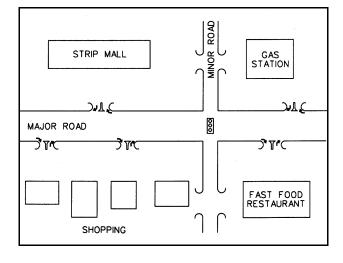
Access Management is a means of balancing a roadway's ability to provide access to property while preserving the flow of traffic, thereby limiting conflict points where crashes often occur. Examples of potential access management improvements in a proposed commercialized area are shown below:

# STRIP MALL STRIP MALL GAS STATION MAJOR ROAD FAST FOOD RESTAURANT SHOPPING

#### **Existing Inefficiently Managed Commercial Area Access**

- Numerous closely-spaced driveways along major road
- Wide, undefined driveway for strip mall
- Few driveways from minor road
- Unrestricted turning movements to/from drives causing potential for crashes
- Intimidating and confusing to local and through vehicles

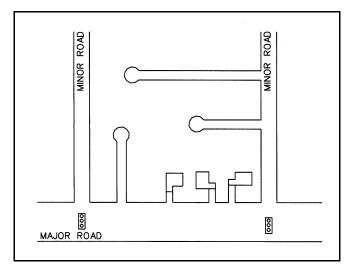
#### **Proposed Commercial Area With Improved Access Management**



- Driveways on major road permit only right turn in and right turn out, minimizing conflict points and crash potential
- Increased access from minor road
- Driveways on minor roads are directly opposite each other
- Well-defined driveways meeting appropriate design standards
- Attractive and uncluttered to travelers and customers
- Traveler safety enhanced

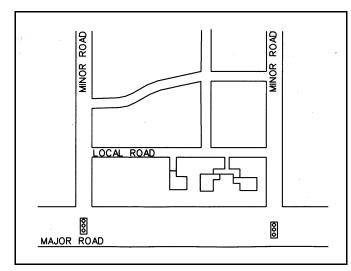
Examples of proposed access management improvements in rural areas are depicted below in the following diagrams:

#### **Existing Inefficiently Managed Rural Area Access**



- Numerous and closely spaced driveways located on major highway
- Subdivisions not designed to provide interconnection of local streets
- Less attractive to potential buyers
- Driveways not shared

#### **Proposed Rural Area with Improved Access Management**



- Shared driveways on local road
- Subdivisions designed to provide interconnection of local streets
- More attractive to property owners, thus improving quality of life.
- Functional integrity of major road maintained
- Traveler safety enhanced

#### 1.4 References and Resources

The standards and specifications applied in the Plan are based on engineering judgment and the following standard engineering references. Reference to these standards is always to the latest publication or edition of the work as amended.

State Highway Access Management Manual, Ohio Department of Transportation, Columbus, OH.

- A Policy on Geometric Design of Highways and Streets, American Association of State Highway and Transportation Officials, Washington, D.C.
- Transportation and Traffic Engineering Handbook, Institute of Transportation Engineers, Washington, D.C.
- Manual on Uniform Traffic Control Devices (MUTCD), U.S. Department of Transportation and Federal Highway Administration, Washington, D.C.
- Ohio Manual of Uniform Traffic Control Devices (OMUTCD), Ohio Department of Transportation, Columbus, OH.
- Location and Design Manual, Ohio Department of Transportation, Columbus, OH.
- Construction and Materials Specifications Manual, Ohio Department of Transportation, Columbus, OH.
- Standard Construction Drawings, Ohio Department of Transportation, Columbus, OH.
- Standard Construction Drawings, Allen County Engineer, Allen County, OH
- Trip Generation Manual, Institute of Transportation Engineers, Washington, D.C.
- Roadside Design Guide, American Association of State Highway and Transportation Officials, Washington, D.C.
- Highway Capacity Manual, Transportation Research Board, Washington, D.C.
- Property Management Manual for the Real Estate Disposal Function, Ohio Department of Transportation, Columbus, OH.
- Volume Warrants for Left-Turn Storage Lanes at Unsignalized Grade Intersections, M.D. Harmelink, Department of Highways, Ontario, Canada.
- Appraisal Manual for the Office of Real Estate, Ohio Department of Transportation, Columbus, OH.

#### 1.5 Implementation

#### 1.5.1. Vehicular Access Regulation

After the date of implementation of this manual, all vehicular access and connections to the categorized Allen County and Township roadway system will be regulated in accordance with the provisions of this Plan. No person will construct any new access or modify an existing access that provides direct vehicular movement to or from any categorized County or Township roadway without a valid access permit issued by the Allen County Engineer and drive permit issued by either the County or Applicable Township.

#### 1.5.2. Exemptions

All access connections providing vehicular movement to or from categorized Allen County or Township roadways, and in use prior to the effective date of the plan, or

constructed in accordance with a valid permit issued by an appropriate local authority having jurisdiction over the roadway at the time of issuance of the permit shall be considered exempt from the policies, requirements, criteria, and standards of the Plan.

#### 1.5.3. Duration of Exemptions

Any exemption provided under Section 1.5.2 shall remain in effect until the provisions and conditions as defined in Section 2.6 or 2.10 become applicable to the access connection. Future driveway changes and modifications, or changes in property use will adhere to the requirements contained in Sections 2.6.2 and 2.10.2 respectively of the Plan.

#### 1.5.4. <u>Consistency</u>

The policies, standards, and requirements for regulating and permitting access to or from categorized Allen County and Township roadways have been adopted by the Allen County Commissioners and are consistent with the purpose of the latest version of the ODOT State Highway Access Management Manual.

#### 1.6 Glossary of Terms

The following definitions are provided to clarify technical terms, phrases, and abbreviations used in this document:

**Acceleration Lane** – A speed-change lane, including tapered areas, for the purpose of enabling a vehicle entering a roadway to increase its speed to a rate at which it can more safely merge with through traffic.

Access or Access Connection – Any driveway or other point of entry and/or exit such as a street, road, or highway that connects to the general street system.

Access Application – An applicant must obtain an Access Application from the Allen County Engineer before formal review of an access can begin. This Access Application and corresponding details will be reviewed and either denied, modified or approved based on the Plan standards. If approved, an Access Permit will be issued to the applicant and the subsequent review process allowed to continue.

**Access Category** – One of the two (2) access categories described in Section 3 of the Allen County Access Management Plan, which determines the degree to which access to a County or Township roadway is managed.

Access Management Plan – A roadway design plan which designates access locations and their design for the purpose of bringing those portions of roadway included in the Plan into conformance with their access category to the extent feasible.

Access Operation – The utilization of an access for its intended purpose, taking into account all consequences or characteristics of that process, including access volumes, type of access

traffic, access safety, time of the access activity, and the effect of such access on the highway system.

Access Permit – Following review and approval of the Access Application, the Allen County Engineer shall issue an Access Permit to the applicant. The Access Permit will provide the applicant initial approval to gain access to the County or Township roadway system. Subsequent reviews will be required before either the County or Township, depending on the roadway jurisdiction, issues a Drive Permit. Refer to Section 2.3.1 for the approval process flowcharts.

**AADT** – The annual average two-way daily traffic volume. It represents the total traffic for the year, divided by 365.

**Applicant** – Any person, corporation, entity or agency applying for an access permit.

**Appropriate Local Authority** – The Board of County Commissioners or Township Trustees, if the access is to be located in the unincorporated area of a county, or the governing body of the municipality if the access is to be located within an incorporated municipality. Also referred to as the local authority, and local government.

**Arterial** – A functional classification for a roadway primarily used for through traffic, usually on a continuous route.

**Auxiliary Lane** – Any additional special purpose lane such as: speed change lanes, hill climbing lanes, and turning lanes.

**Capacity** – The ability of the highway to provide service to the volume of vehicles seeking to use the highway. Capacity is most often considered the maximum volume of traffic that can be accommodated by a highway during a specified unit of time.

**Channelizing Island** – A defined area between traffic lanes for control of vehicle movements.

**Clear Zone** – The total roadside border area, starting at the edge of the traveled way, available for safe use by errant vehicles.

**Collector** – A functional classification for a roadway in an intermediate functional category connecting smaller local or street systems with larger arterial systems.

**Control of Access** – The condition in which the access right of owners or occupants of land abutting or adjacent to a roadway is controlled by public authority.

**Controlled-Access Highway** – A street or highway to or from which legal right of access is limited to such points and in such manner as may be determined by the public authority having jurisdiction over such street or highway.

**County Roads** – All roads, which are or may be established as a part of the county system of roads as provided in ORC sections 5541.01 to 5541.05.

**Deceleration Lane** – A speed-change lane, including tapered areas, which enables a vehicle to leave the mainstream of faster moving traffic and to slow to a safe turning speed prior to exiting the highway.

**Design Hour Volume (DHV)** – The hourly traffic volume used in the geometric design of highways. In Ohio, the DHV is the 30<sup>th</sup> highest hour vehicular volume experienced in a one-year period.

**Design Speed** – Used as a basis for geometric design, it is typically the posted speed limit plus 5 mph.

**Divided Highway** – A highway with separated roadways for traffic moving in opposite directions, such separation being indicated by depressed dividing strips, raised curbing, traffic islands, or other physical barriers so constructed as to prevent or discourage crossover vehicular traffic or otherwise indicated by standard pavement markings or other official traffic control devices as prescribed in the Ohio Manual of Uniform Traffic Control Devices.

**Drive Permit** – Once the Access Permit has been issued by the Allen County Engineer and concurrent Plan reviews completed, the applicant must obtain a Drive Permit from either the County or Township, depending on the roadway jurisdiction, before constructing the access.

**Driveway** or **Private Road** – Every way or place in private ownership used for vehicular travel by the owner and those having express or implied permission from the owner but not by other persons.

**Driveway Spacing** – The desired distance between adjacent driveways on the side of the roadway, as measured between a line tangent to the near edges of each driveway, considered necessary for the safe ingress and egress of vehicles and the safe operation of the highway at its posted speed. Refer to Section 4.4 of the Plan.

**Expressway** – A divided arterial highway for through traffic with full or partial control of access with an excess of fifty percent of all crossroads separated in grade.

**Field Approach** or **Field Access** or **Field Drive** – An access to undeveloped or agricultural property that has an average use of less than two trip ends per day.

**Freeway** – A divided multi-lane highway for through traffic with all crossroads separated in grade and with full control of access. It is a highway especially designed for through traffic and over which abutting property owners have no easement or right of access by reason of the fact that their property abuts upon such highway. Access to a freeway may be allowed only at highway intersections designated by the Director of Transportation, Board of County Commissioners, or municipal authorities on roads within their jurisdiction.

**Frontage Road** – A public street or road located alongside and parallel to the main highway, constructed for the purposes of maintaining local road continuity and controlling direct access to the main highway.

**Functional Classification** – A classification system that defines a public roadway according to its purposes and hierarchy in the local or statewide highway system. The Functional Classification categories are distinct from the Access Management categories and are defined by the Federal Highway Administration (FHWA).

**General Street System** - The interconnecting network of city streets, county roads, township roads, and state highways in an area.

**Grade Separation** – A crossing of two roadways, a roadway and a railroad, or a roadway and a pedestrian walkway or bike path in such a way that neither facility interferes with the operation of the other.

**Gradient** or **Grade** – The rate or percent change in elevation, either ascending or descending, from or along the highway. It is to be measured along the centerline of the roadway or access.

**Highway** or **Street** – The entire width between the boundary lines of every way open to the use of the public as a thoroughfare for purposes of vehicular travel.

**Interchange** – A facility that provides ramps for access movements between intersecting roadways that are grade separated. The ramps and any structures used to accomplish the movement of traffic between the roadways are considered part of the interchange.

Intersection – (1) The area within the prolongation or connection of the lateral curb lines, or, if none, then the lateral boundary lines of the roadways of two highways which join one another at, or approximately at, right angles, or the area within which vehicles traveling upon different highways joining at any other angle may come in conflict; (2) Where a highway includes two roadways thirty feet or more apart, then every crossing of each roadway of such divided highway by an intersecting highway shall be regarded as a separate intersection. If an intersecting highway also includes two roadways thirty feet or more apart, then every crossing of two roadways of such highways shall be regarded as a separate intersection; (3) The junction of an alley with a street or highway, or with another alley, shall not constitute an intersection.

**Intersection Sight Distance** – The distance at which a motorist attempting to enter or cross a highway should be able to observe traffic in order to make his desired movement. The required distance varies with the speed of the traffic on the main highway.

**Inventory** – The listing, which provides the access category for each section of County and Township roadways as assigned and determined in accordance with Section 2.2 of the Plan.

**Issuing Authority** – The governmental entity which issues access and drive permits.

LACRPC – Lima Allen County Regional Planning Commission

**Lane** – The portion of a roadway for the movement of a single line of vehicles. It does not include the gutter or shoulder of the roadway.

**Level of Service (LOS)** – A qualitative measure describing a range of traffic operating conditions such as travel speed and time, freedom to maneuver, traffic interruptions, comfort and convenience, as experienced and perceived by motorists and passengers. Six levels are defined from A to F, with A representing the best range of conditions and F the worst.

**Limited Access Highway or Freeway** – A highway especially designed for through traffic and over which abutting property owners have no easement or right of access by reason of the fact that their property abuts such highway, and access to which may be allowed only at highway intersections designated by the Director of Transportation.

**Local Government** – The Board of County Commissioners or Township Trustees, if the highway section is located in an unincorporated area of a county, or the governing body of the municipality if the highway section is located within an incorporated municipality.

**Local Road** – A functional classification used for roadways whose primary function is to provide access to residences, businesses or other abutting properties.

**Median** – That portion of a highway separating opposing traffic flows.

**Median Island** – A curbed island which prevents egress traffic from encroaching upon the side of the drive used by ingress traffic.

**MPH** – A rate of speed measured in miles per hour.

**OMUTCD** – The Ohio Manual of Uniform Traffic Control Devices.

**Peak Hour Volume** – The highest traffic volume in 60 consecutive minutes in one (or both) of the two traditional peak periods of traffic, the morning period from 7 a.m. to 9 a.m. and/or the evening period from 4 p.m. to 6 p.m.

**Permit Issue Date** or **Date of Issue** – The date when the authorized County or Township official signs the access or drive permit.

**Permittee** – Any person, unit of government, public agency or other entity that can own property, to whom an access or drive permit, is issued. The permittee, normally the property owner served by the access, is responsible for fulfilling all the terms and conditions of both permits.

**Plan** – The Allen County Access Management Plan.

**Potential for Signalization** – Access that has the potential to meet any of the warrants for a traffic signal as defined by the OMUTCD.

**Right-of-Way** – A general term denoting land, property, or the interest therein, usually in the configuration of a strip acquired for or devoted to transportation purposes. When used in this context, right-of-way includes the roadway, shoulders or berm, ditch, and slopes extending to the right-of-way limits under the control of the state or local authority.

**Relocate** – To remove and establish in a new place, including, if necessary to conform a property's access to the provisions of the Allen County Access Management Plan, merging or combining non-conforming access with other existing access so as to eliminate the non-conformance. In such event, the property owner or permittee, if applicable, may be required to remove all physical elements of the non-conforming access, such as curb cuts and surfacing material, and install curbing, barriers, or other physical separators to prevent continued use of the access.

**Roadside** – Area between the outside shoulder edge and the right-of-way limits.

**Roadway** – That portion of a highway improved, designed or ordinarily used for vehicular travel including the berm or shoulder. If a highway includes two or more separate roadways, the term "roadway" means any such roadway separately but not all such roadways collectively.

Signal - A traffic control signal.

**Signalization** – Installing or modifying a traffic control signal.

**Signal Progression** – The progressive movement of traffic at a planned rate of speed without being required to stop through adjacent signalized locations within a traffic control network or corridor.

**Signal Warrant Analysis** – A study which justifies the imposition of traffic signals at an intersection. Refer to Section 4C of the OMUTCD.

**Single Unit Vehicle** – A single frame vehicle, longer than a passenger car, as described dimensionally by AASHTO as a single unit design vehicle generally including delivery trucks, haul vehicles, camping and recreational vehicles, and motor homes, having an overall length of greater than 19 feet and two or more axles.

**Slope** – The relative steepness of the terrain expressed as a ratio or percentage. Slopes may be categorized as positive or negative and as parallel or cross slopes in relation to the direction of traffic.

**Speed Change Lane** – A separate lane for the purpose of enabling a vehicle entering or leaving a roadway to increase or decrease its speed to a rate at which it can safely merge with or diverge from through traffic. Acceleration and deceleration lanes are speed change lanes.

**State Highway** – All state highways are part of the state highway system as established by law, exempting those state highway routes into and through municipal corporations.

**State Roads** – The roads and highways on the state highway system.

**Stopping Sight Distance** – The distance required by a driver of a vehicle, traveling at a given speed, to bring the vehicle to a full stop after an object on the roadway becomes visible. It includes the distance traveled during driver perception and reaction times and the vehicle braking distance.

**Storage Length** – An additional lane length added to a deceleration lane to store the maximum number of vehicles likely to accumulate in the lane during a peak hour period. The purpose of the lane is to prevent stored vehicles from interfering with the function of the deceleration lane or the through travel lanes.

**Taper** – A transitional area of decreasing or increasing pavement width to permit the formation or elimination of an auxiliary lane.

**Township Roads** – All public highways outside municipalities other than State or County roads. The Board of Township Trustees shall maintain all such roads within its Township.

**Traffic Impact Study (TIS)** – A study which is required to be completed before an access permit can be approved and issued for any development or land use which generates or has the potential to generate traffic volumes exceeding the threshold value specified in Section 5 of the Plan. The purpose and need for the TIS is to determine more precisely the impacts of the access usage, to mitigate these impacts through the proper location, design, and construction of the access connection(s), and to ensure the continued functional and operational integrity of the highway.

**Traveled Way** – That portion of a roadway for the through movement of vehicles, exclusive of shoulders, gutters, and auxiliary lanes.

**Trip End** – A single or one-direction vehicle movement with either the origin or the destination inside a study area. A vehicle leaving the highway and entering a property is one trip end and later leaving the property and entering the highway is another trip end.

**Turn Lane Warrant Analysis** – A methodology used in determining if turn lanes are required to maintain the integrity of the highway due to applicant's proposed/existing traffic volumes.

**Variance** – A granting of permission to depart from the standards and requirements of the Plan because of unique circumstances or existing special conditions.

**Warrant(s)** – The criteria by which the need for a treatment or improvement can be determined.

#### 2 ADMINISTRATION

#### 2.1 Purpose

This section sets forth the procedures and requirements governing the issuance of access and drive permits by the Allen County Engineer and/or Township for use or occupancy of right-of-way for the purpose of constructing and using private driveways and approaches and/or public road and street intersections with a categorized county or township roadway.

#### 2.2 Access Inventory

#### 2.2.1. Maintenance of Inventory

The Allen County Engineer shall maintain an inventory of each section of County and Township roadway, listing its access assignment based on the access categories described in Section 3. This inventory shall be updated as needed to reflect changes in the roadway environment affecting the functional requirements of the roadway. The initial assignment of access categories and any subsequent revisions shall be determined in cooperation and coordination with appropriate local authorities, including public input, to ensure that assignments are compatible with preserving and maintaining the roadway's intended and designed function within the county and township roadway system and within the context of the area's transportation and land use needs and plans.

#### 2.2.2. Availability

In addition to the Plan, the Access Inventory listing the access category of each section of County and Township roadway in Allen County shall be available from the Allen County Engineer.

#### 2.2.3. Change Requests

Requests for changes in the access category of a county or township roadway or sections thereof may be submitted to the Allen County Engineer. The explanation must discuss how the requested change is consistent with and conforms to the purpose and standards of the Plan and does not compromise the public health, safety, and welfare. Based on acceptance, the Allen County Engineer will forward the request to the Allen County Commissioners for review and approval. A change in access category shall not be made solely to accommodate a specific access request or to allow the permitting of access connections that would not otherwise be permitted.

#### 2.2.4. Coordination

The Allen County Engineer shall coordinate and cooperate as appropriate with local governments and agencies in the review of plats, zoning, subdivision, and other land use regulations affecting the safety and operation of county and township roadways to ensure that future access requirements related to local land use

decisions are consistent with the purposes and standards of the Plan. The issuance or approval of any permit, agreement, plat, subdivision, plan, or correspondence shall not abrogate or limit the regulatory powers of the Allen County Engineer or other local issuing authority exercised in the protection of the public's health, safety and welfare.

#### 2.2.5. <u>Land Use</u>

Land uses, including residential, commercial, and industrial development approved by the local authority, shall ensure that all requirements for access to categorized County and Township roadways are provided in conformance with the Plan.

#### 2.3 Access Application Submittal

#### 2.3.1. Access Application Review and Approval

Applications for direct access to a categorized County or Township roadway as described or listed in Section 3.3 and 3.4 shall follow the processes outlined below. The Allen County Engineer shall have the final responsibility of reviewing for completeness and conformity with the Plan and other applicable local, state, and federal regulations; inspecting construction to ensure compliance with any conditions of the access permit; and maintaining records of all access applications. The process for access application review and access permit issuance is as follows on the following pages in Figures 1, 2, and 3:

**Applicant** Applicant to Submit Site Plan and applicable information and details to the Allen County Engineer for Access Review Allen County Plan Revisions Needed -**Denied 20 Days No Access or Drive** Engineer **Applicant to Resubmit** (Refer to Section 2.4.3) **Permit** Access 15 Days (Refer to Section 2.3.8) Review **Access Application Approved** Applicant may file appeal 20 Days (Refer to Section 2.4.3) and/or variance. **Access Permit Issued by the Allen County Engineer** Applicant to request Drive Permit from County or Township **Applicant** Applicant to Submit Access Permit, and other applicable information for Drive Permit Review **Allen County Denied** Plan Revisions Needed -**No Drive Permit Engineer Drive Applicant to Resubmit** Permit Review\* **Drive Permit Approved** \*Public Agency Concurrent Plan Review **Drive Permit Subdivision Reg. Compliance** Issued by the **Stormwater Management & Sediment Controls Reg. Compliance Allen County Zoning Compliance Engineer or Building Department Township Regional Planning** Depending on **Fire Department** Jurisdiction \*this list is non-exhaustive

Figure 1 - Residential Development

Figure 2 - Commercial/Industrial Development - County Road Driveway Permit Request

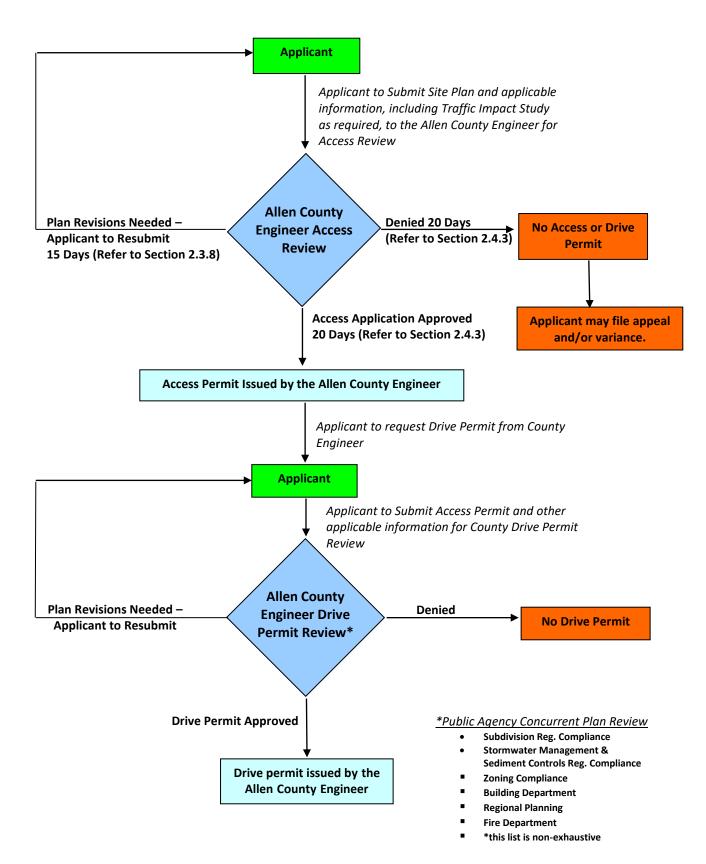
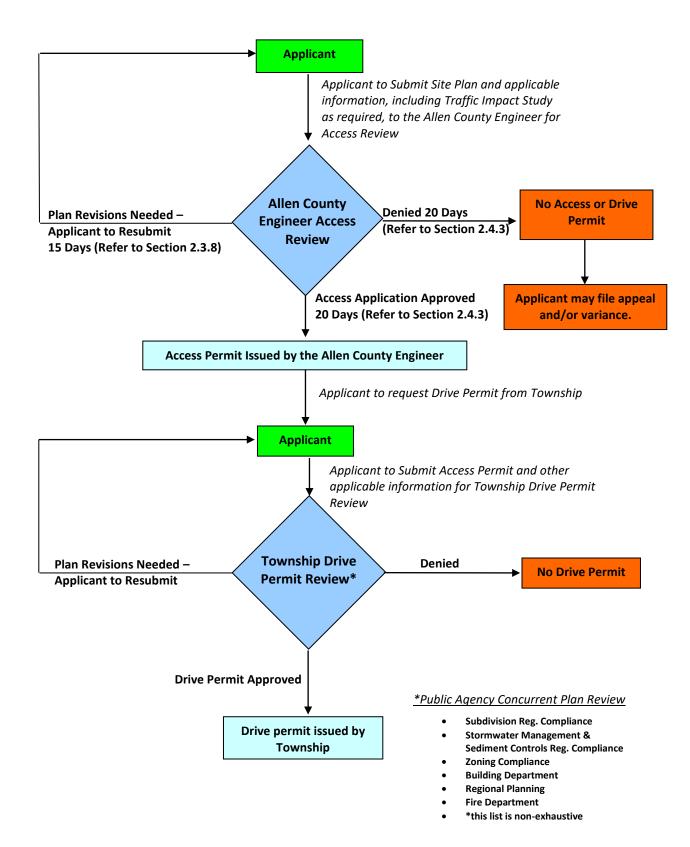


Figure 3 - Commercial/Industrial Development - Township Road Driveway Permit Request



#### 2.3.2. Required Data

Access applications shall include a request for review and any attachments necessary for the Allen County Engineer to assess the application accurately and thoroughly. Access applications must bear the complete name(s), address(es), telephone number(s), and signature(s) of the property owner(s). Applications by the contractor or anyone other than the owner of the property, or his authorized agent are not acceptable.

#### 2.3.3. Number of Copies

A minimum of four (4) sets of plans shall be submitted for a commercial or industrial access application review. Two (2) sets of plans are required for a residential access application review. The Allen County Engineer may require additional copies based on the scope, location, and expected impacts of the access proposal. The date of submission of the access application and any accompanying material shall be appropriately marked on the material.

#### 2.3.4. Required Level of Detail

The information and level of detail required to review the access application will vary according to the type and usage of the access connection requested. Prior to submitting an access application, applicants may wish to contact the Allen County Engineer for information about the review and approval process and the type of information that may be required for review. For example, an access application for a minimal use driveway connection for a single family dwelling will require less information and can generally be processed more quickly than access applications for connections to multi-family, high density residential or commercial/retail developments which have greater impacts on the roadway.

#### 2.3.5. Attachments

Information and/or attachments may include but are not limited to the following:

- property and ownership maps showing the location of the property;
- site plans, drawings, and/or construction plans as necessary showing the location of the proposed access connection with reference to the highway, right-of-way, property lines, existing buildings, structures and parking, and existing access connections on abutting properties and on properties opposite the proposed access connection for 1000 feet minimum on either side of the centerline of the proposed access;
- the use to be served by the proposed connections (i.e., residential, industrial, commercial, retail and the type of business to be served);
- existing property usage and conditions including existing available access, easements, and relation to abutting public roads and streets;

- extent of proposed work including the type, width, radii, and location of any proposed access with respect to property lines and to the roadway; the type, location, length, size, and dimensions of any existing and proposed drainage structures; and hydraulic data;
- Subdivision, zoning, or local development plan, if applicable;
- for larger and higher volume locations such as those potentially generating 100 or more trip ends in the peak hour or for locations identified by the Allen County Engineer as requiring further traffic analysis, a Traffic Impact Study (refer to Section 5 for details).

#### 2.3.6. Larger Developments

It is strongly recommended that applicants seeking access to large, high volume residential, industrial, and/or commercial and retail development (sites potentially generating 100 or more trip ends in the peak hour) request a preliminary meeting with the Allen County Engineer, even if the development is not located on a categorized roadway. A preliminary meeting is especially recommended for access proposals whose traffic generation may require a more detailed study, including a Traffic Impact Study (see Section 5). Applicants should provide sufficient materials such as preliminary maps, plans, and documents to illustrate the site, size, and type of proposed land use, estimated traffic volumes and vehicle types generated by the site, adjacent public roads, and any existing or available access points.

A preliminary meeting provides the Allen County Engineer with an early opportunity to examine the feasibility of the access proposal. The Allen County Engineer will decide whether a Traffic Impact Study is warranted, and if so, will define its scope. Discussions may include: site specific conditions and options for site access location and design; applicability of requirements in the Plan; and necessary materials to be submitted with the formal access permit application.

Preliminary discussion of these matters can expedite later review and evaluation of the access permit application. Comments, suggestions, and recommendations made during any preliminary meetings are in no way binding upon the Allen County Engineer in subsequent evaluation of a formal access permit application or decisions about the issuance of an access permit.

#### 2.3.7. Traffic Impact Study

The Allen County Engineer reserves the right to require a Traffic Impact Study for any development meeting the thresholds established in **Section 5** of this Plan, regardless of location or roadway category. Applicants for larger developments should refer to the standards presented in this Plan when considering access onto the County and Township roadway system.

The Allen County Engineer's request for a Traffic Impact Study does not presume the subsequent approval of an access request or issuance of an access permit by the Allen County Engineer. Issuance of an access permit is based on the results of the Traffic Impact Study demonstrating to the Allen County Engineer's satisfaction that the access proposal or its modification will not degrade the traffic operation and function of the highway, and that the improvements required by the proposal or its modification are consistent with the Plan.

#### 2.3.8. <u>Cause for Rejection</u>

An access application may be rejected if, in the opinion of the Allen County Engineer, necessary and essential information is missing. The applicant will be notified within fifteen (15) working days of any omissions in the access application submittal needing correction or clarification.

#### 2.3.9. Evaluation Criteria

In evaluating and acting on an access application and Traffic Impact Study, the Allen County Engineer shall use this Plan as required. An access permit shall be issued only in compliance with this document and may include terms and conditions deemed necessary to support and protect the public's health, safety and welfare as well as the planned or intended operation of the county or township highway. The Allen County Engineer may impose terms and conditions as necessary to meet the requirements of the Plan.

#### 2.3.10. Date of Acceptance

When the Allen County Engineer determines that an access application is complete and acceptable, the original access application and any copies shall be marked appropriately with the date of receipt. The date of receipt by the Allen County Engineer shall be used in calculating the required time frame for the review of the access application.

#### 2.4 Access Application Review Process

#### 2.4.1. Issuance of Access Permit

It is the Allen County Engineer's goal to complete the review process for all access application requests as expeditiously as possible. The scope, location, and expected impacts of the access proposal will determine the level of required detail and the type of review necessary to evaluate the access application and the length of time necessary to conduct the review.

#### 2.4.2. Review Coordination

The County Engineer shall promote cooperative and coordinated local agency reviews for the purpose of evaluating access applications, particularly with regard to developments that propose typical access alternatives. Participants in the

process would include representatives from the County Engineer's Office, County Commissioner's Office, Local Township, and LACRPC. The Allen County Engineer shall review all access applications for completeness and conformance with applicable policies and regulations and shall coordinate the subsequent review process with the appropriate local officials.

#### 2.4.3. Access Category III and IV Reviews

The Allen County Engineer shall complete the review and final action of Access Categories III and IV access applications within twenty (20) working days of the date of receipt of the access application. Failure to grant or deny the permit within the twenty (20) working days constitutes the granting of the permit.

#### 2.4.4. Effects of Construction

The review of the access application shall take into consideration the proposed method and duration of construction and the effect on highway traffic. Additional traffic controls for maintaining traffic during construction, time limits or hours of the day when lanes or shoulders may be closed, or other prudent controls may be appended as conditions to the permit to ensure compliance with requirements of the OMUTCD, to protect traffic from unnecessary delay, or to ensure safety during construction.

#### 2.5 Access Permit Approval

#### 2.5.1. Issuance of Permit

Upon approval of the access application, the Allen County Engineer shall issue a signed access permit, along with any modifications, conditions or restrictions that apply to the permit, to the applicant. An access permit is not valid until it is signed by the Allen County Engineer or the appointed representative.

The Allen County Engineer may charge an access permit fee, not to exceed the cost of administering the plan.

#### 2.5.2. Restrictions

No changes, modifications, or revisions may be made to the location or design or to the conditions and terms as contained in the approved access permit. If an applicant wants changes from a previously approved access permit, the applicant must apply for a new permit. The new permit then supersedes the original permit.

#### 2.6 General Provisions Applying to All Access Permits

#### 2.6.1. Limitations

The granting of an access permit does not convey to the applicant, or to the property served, any rights, title, or interest in state, county or local roadway rights-of-way or in the design or operation of the roadway, or in any way abridge

the right of the Allen County Engineer or local Township officials in the exercise of its jurisdiction over County or Township highways.

#### 2.6.2. <u>Future Changes</u>

If necessary to improve the safety and operation of the highway, the Allen County Engineer and/or Township may reconstruct, relocate, modify, repair, or remove any access connection or any features or fixtures thereof. In addition, if it is necessary to improve the safety and operation of the highway for the benefit of the traveling public, the Allen County Engineer may redesign the drive and roadway including installing any auxiliary lanes and modifying any allowable turning movements. Any such changes in drive or roadway design that are necessary for improved safety and operation of the roadway for the benefit of the traveling public, shall not require a permit modification for an access point since the permit confers no private rights to the applicant over the control of the roadway design. Furthermore, any such changes in drive or roadway design that are initiated by the Allen County Engineer or Township are not compensable to the property owner as long as the drive isn't completely closed and/or additional right-of-way is not needed.

#### 2.6.3. Compliance

The Allen County Engineer has authority to ensure full compliance with all provisions of the access permit and to reject any materials, design, and workmanship that do not meet applicable County standards.

#### 2.6.4. <u>Cause for Suspension</u>

Failure on the part of the applicant to comply fully with the provisions and conditions of the access permit will be cause for suspension, revocation, or annulment of the permit thereby rendering the access connection illegal and subject to Allen County Engineer's action under Section 2.11.

#### 2.6.5. Compliance Agreement

The acceptance of the access permit by the party or parties to whom the permit was granted constitutes an agreement to comply with all conditions, terms, and restrictions printed or written on or attached to the permit.

#### 2.6.6. <u>Liability</u>

The applicant shall hold harmless the County, Township, the Ohio Department of Transportation, the State of Ohio and all of its representatives from all suits, actions, or claims of any character, brought on account of any injuries or damages sustained by any person or property in consequences of any neglect or on account of any act or omission as a result of the issuance of an access permit, or any act or omission related to any provision of the Allen County Access Management Plan.

#### 2.6.7. Abutting Roadways

When access is requested for property abutting roadways assigned to different access categories, the access should be given to the roadway in the lower category.

#### 2.7 Construction and Compliance with Access Permits

#### 2.7.1. Work Performance

All work authorized under the conditions of the access permit shall be performed to the satisfaction of the Allen County Engineer, with the entire expense being borne by the applicant. Work authorized by the access permit shall not be performed until the applicant has contacted the Allen County Engineer and received instructions.

#### 2.7.2. Inspection

During construction, the Allen County Engineer's representative shall inspect all work covered by the access permit and ensure that the work is being performed in accordance with the access permit conditions and plan specifications. If the work is not being performed as specified, the work shall be stopped and the Allen County Engineer's representative shall report the action and the circumstances to the Allen County Engineer.

#### 2.7.3. <u>Time for Completion</u>

All work to be performed as authorized by the access permit shall be completed within the time frame specified on the access permit and driveway permit, if applicable. An access permit shall be considered void if the work is not completed within the required time frame, thereby rendering the access connection illegal and subject to Allen County Engineer action under Section 2.11. The applicant may request an extension from the Allen County Engineer. The request must be in writing and must explain why the extension is necessary and when the work is to be completed.

#### 2.7.4. <u>Violation of Access Permit Provisions</u>

If the applicant performs any work contrary to the orders of the Allen County Engineer and/or Township appointed representative, or contrary to the conditions and provisions of the access permit, and after due notice of the violations fails to correct such work, the Allen County Engineer shall notify the applicant that the access permit is void, thereby rendering the access connection illegal and subject to County action under Section 2.11.

#### 2.7.5. Construction on Roadway or Shoulders

Access Permits involving construction infringing on the roadway or shoulders within eight (8) feet of pavement shall include a Maintenance of Traffic Plan in

accordance with the OMUTCD. Any needed closure of lanes or shoulders shall be described in terms of location, duration, time of day, etc. Lane and shoulder closures and other work shall not commence until all Traffic Control Devices are in place. Traffic Control Devices shall be removed immediately when they are no longer needed. Lane or shoulder closures and other hazards existing for a longer time period than necessary may be cause for the Allen County Engineer to order revocation of the access permit and immediate closure of the work areas, removal of all hazards, and removal of all equipment.

#### 2.7.6. Roadway Condition upon Completion

Upon completion of the work authorized by the access permit, the applicant shall leave the right of way clean of all rubbish, excess materials, temporary structures and equipment, and all parts of the roadway shall be left in a condition acceptable to the Allen County Engineer, as so determined by a final inspection.

#### 2.7.7. Certificate of Compliance

Upon satisfactory completion of the work authorized by the access permit, the Allen County Engineer's appointed representative shall certify that the applicant has complied with the terms of the access permit.

#### 2.8 Variance Procedures for Access Requests

#### 2.8.1. Purpose

An access variance grants permission to depart from the standards and requirements of the Plan based on unique circumstances or existing special conditions.

#### 2.8.2. <u>Variance Request</u>

Applicants seeking a variance from the standards and regulations of the Plan must submit the request at the time preliminary plans are submitted as an attachment to the access application form. The Access Management Variance Board, as designated by the Allen County Commissioners, shall process all requests for a variance. A subsequent request for a variance may be allowed as a supplement to a previously submitted application if the Access Management Variance Board determines that it is in the public interest to do so and that sufficient time remains in the review period to consider the variance.

#### 2.8.3. <u>Documentation of Request</u>

The request for a variance shall specify, in writing, why the variance is appropriate and necessary and shall document the unique conditions or special circumstances that make it impractical and infeasible to meet the applicable standards and requirements of the Plan. The documentation shall show that the applicant has considered all practical and reasonable alternatives to mitigate the unique

conditions or special circumstances; that the alternatives are not feasible or practical, and that without the variance the applicant will be deprived of reasonable access. A variance will not be granted for procedural requirements or the applicant acting with or without knowledge of the applicable standard or requirement.

#### 2.8.4. <u>Access Management Variance Board Determination</u>

In considering a request for a variance, the Access Management Variance Board shall determine if:

- the variance meets minimum applicable ODOT and/or County engineering standards including geometric design, operation, and safety elements and if the variance is shown to be beneficial to the traveling public;
- the variance is not detrimental to the public health, safety, and welfare;
- the variance must be shown to not degrade the planned or intended operation of the county or township highway.

#### 2.8.5. Other Factors

In determining whether to grant a variance, the Board shall also consider the following factors:

- current functional classification
- existing and projected traffic volumes and vehicle mix
- existing and projected capacity and levels of service
- a survey of existing character of land and proposed or anticipated land use adjacent to the roadway, whether developed or undeveloped, and type of development
- a survey of physical features of the roadway
- adopted local transportation plans and needs
- adopted local land use and zoning plans, subdivision/commercial/industrial regulations
- availability and reasonableness of alternative access to public street and road system; and
- posted or operating speed

Variance approval shall be consistent with the purposes and goals of the Plan cited in Section 1.2.

#### 2.8.6. Time for Determination

The Board shall make every reasonable effort to make a determination on a variance within thirty (30) days from receipt of all required information.

#### 2.8.7. Recording

When a variance is granted, the documentation of the reason(s) for approving the variance shall be included in the Allen County Engineer's files and records pertaining to the access permit. The terms and conditions of the approved access permit and variance shall state that the applicant may be required to improve, modify, eliminate, or correct the condition responsible for the variance when it is evident that the justification for the variance is no longer valid. The granting of a variance shall not establish a precedent by which other access applications may be judged.

#### 2.9 Appeals Procedures

#### 2.9.1. Variance Appeal

When an applicant objects to the denial of a variance request, the applicant may file an appeal within thirty (30) days of the notice of the denial of the variance. The written appeal shall include reasons for the appeal and may include changes, revisions, or conditions that would be acceptable to the applicant.

Within thirty (30) days of the filing of an appeal, the Access Management Variance Board shall determine whether the denial of the variance is justified. The decision of the Access Management Variance Board is the final agency action on the permit request. The applicant shall be notified of the final decision.

#### 2.9.2. Appeal from Initial Decision

The Variance Board shall also be authorized to hear and decide appeals when it is alleged that there is error in any order, requirement, decision, or determination made by an administrative official in the enforcement of these regulations.

Any person so aggrieved must file an appeal to the Variance Board within thirty (30) days of the decision in which they are appealing. Said appeal must be in writing and must indicate the reason(s) why the aggrieved party believes that an error was made.

Within thirty (30) days of the filing of any appeal, the Variance Board shall determine whether the alleged error was correct. The decision of the Variance Board is the final agency action on the permit request. The applicant shall be notified of the final decision.

#### 2.9.3. General

Any person who has been aggrieved by these regulations also has the rights of appeal as set forth in ORC Chapter 2506 or any other applicable section of the ORC.

#### 2.10 Use of Access

#### 2.10.1. Owner Responsibility

It is the responsibility of the property owner to ensure that the use of the access to the property is not in violation of the access permit's terms and conditions. The terms and conditions of any access permit are binding upon all assigns, successors-in-interest, heirs and occupants. If any significant changes are made or will be made in the use of the property, which will affect access operation, traffic volume, or vehicle type, the applicant or property owner shall contact the Allen County Engineer to determine if a new access permit and modifications to the access are required.

#### 2.10.2. Change in Property Use

The property owner or applicant, if applicable, may be required to reconstruct, relocate, redesign, or otherwise modify an existing access in order to conform to the standards and design specifications of the Plan when a change in use of the property results in a change in the type or nature of access operation. A change in use may include, but is not limited to, structural modifications, remodeling, a change in the type of business conducted, expansion of an existing business, a change in zoning, or a division of property creating new parcels. A change in use does not include modifications in advertising, landscaping, general maintenance, or aesthetics, which do not affect traffic operations and safety.

Change in use includes but is not limited to the following:

- the use of the access increases actual vehicular volume by 20 percent or more or an actual increase of 10 or more trip ends in the peak hour;
- the traffic volume of a particular directional characteristic (such as left turns) increases by 20 percent or more or an actual increase of 5 or more trip ends in the peak hour;
- the use of the access by vehicles exceeding 30,000 pounds gross vehicle weight increases by 20 percent or more or an actual increase of 10 or more trip ends in the peak hour;
- the use of the access increases actual vehicular volume from a level not exceeding Plan warrants and standards for design elements, to a level exceeding Plan design warrants and standards by 20 percent or more;
- the historical use of the access was less than the daily use, and the new use would be for daily use of the access; and

• the free flow of vehicles entering the property is restricted or such that vehicles queue on the roadway, creating a roadway hazard.

#### 2.10.3. Change in Access

A change in use which results in a change in the type or nature of access operation is presumptively established when, following the change in use, any of the events listed in Section 2.10.2 occur or are reasonably expected to occur by proper application of the most recent edition of the *ITE Trip Generation Manual*.

#### 2.11 Access Permit Violations

#### 2.11.1. Access to Roadways Established After Adoption

Any access connection providing direct access to an Allen County or Township roadway that is constructed or established after the effective date of the adoption of the Plan and not in accordance with the requirements of the Plan, and without approval of the Engineer, shall be considered an illegal obstruction within the highway right-of-way. Violation of the regulations will result in a fine not to exceed \$500 per offense. Each day of a violation is considered a separate offense.

#### 2.11.2. Removal of Obstruction

Upon determining that an access connection is illegal under the terms of the Plan, the Allen County Engineer may treat the connection as an obstruction within the highway right-of-way and require its removal, or proceed by any other appropriate and necessary civil and/or criminal action.

#### 2.12 Access Management Plan

#### 2.12.1. <u>Purpose</u>

The Plan was developed by the Allen County Commissioners and the Allen County Engineer for County and Township roadways for the purpose of improving traffic flow, reducing congestion and travel delay, maintaining highway capacity, reducing accidents, and protecting public health, safety, and welfare.

#### 2.12.2. Function

The Plan establishes a comprehensive roadway design and provides a means of bringing the roadway into conformance with its assigned access category and its functional purpose to the greatest extent possible.

#### 2.12.3. Balance

The Plan achieves the best possible balance between the state, regional, and local transportation plans, goals, and infrastructure and the maintenance of the roadway's current and future functional and operational integrity.

#### 2.12.4. Revisions

The Plan may be revised and updated to identify existing and future access locations along with their related design elements, including traffic signal locations. To the greatest extent possible, the Plan meets the functional criteria and design standards of the roadway's assigned access category and conforms to the design standards and specifications contained in Section 4 of the latest version of the ODOT State Highway Access Management Manual.

The Plan shall be reviewed no less frequently than every five (5) years unless otherwise approved by the Allen County Board of Commissioners.

#### 2.12.5. Scope

The Allen County Commissioners and the Allen County Engineer developed the Plan for categorized roadways under the jurisdiction of Allen County and those Allen County Townships that have chosen to participate in the Plan. This plan was presented to the public for comment and review in accordance with the public involvement process and requirements of Allen County, and the applicable sections of the Ohio Revised Code. The Allen County Commissioners, and the Allen County Engineer formally adopted the Plan. The Allen County Commissioners and the Allen County Engineer shall approve all modifications and revisions to the Plan in writing.

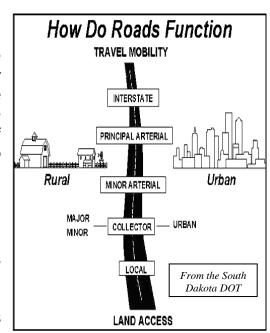
#### 3 ROADWAY ACCESS CATEGORIES AND CHARACTERISTICS

#### 3.1 Purpose and Use

The roadways located in Allen County have been categorized according to their functional and operational intent. These categories and assigned parameters have been developed by the Ohio Department of Transportation and will be referenced to provide continuity of all roadways within the County.

#### 3.2 Categories

This section describes the Access Categories that have been assigned to roadways within Allen County. The categories are based on maintaining the roadway's function in terms of capacity, traffic flow and safety. The



roadways under the jurisdiction of this Plan are Access Category III and IV. Table 1 provides the access category functions.

Refer to Section 3.3 for tables identifying and categorizing the roadway system in Allen County. Categories may be revised based on a request by a governmental agency and subsequent review and approval of the Allen County Engineer's Office.

#### 3.2.1. Category I

For informational purposes refer to the latest version of the *ODOT State Highway Access Management Manual*. Category I highways typically include freeways and expressways with limited access right-of-way (interstate and interstate look-alike facilities).

#### 3.2.2. <u>Category II</u>

For informational purposes refer to the latest version of the *ODOT State Highway Access Management Manual*. Category II highways typically include U.S. and State Routes with a higher level of access control. U.S. and State Routes can also be included under Category III.

#### 3.2.3. <u>Category III</u>

**Function** - Category III highways are designed to provide mobility at moderate to high speeds and volumes. These highways provide for interregional, intercity, and intra-city travel. Category III highways typically

include arterials, major collectors, some minor collectors and some local roads.

These highways have been determined to be of higher importance, and due to their location or function, are held to higher operational standards. They may be located within 1 mile of a corporation limit, in an area which has been zoned for high density residential or commercial development, or intended to provide access mainly to through vehicles.

Operational Standards - Warranted signals should be spaced at a minimum of one (1) mile in rural areas. One-half (1/2) mile spacing may be allowed in rural areas when reasonable alternative access cannot be provided. On urban highway sections, signalized intersections should be spaced at a minimum of one-half (1/2) mile. One quarter (1/4) mile spacing may be allowed when reasonable alternative access cannot be provided.

Category III highways should provide for a minimum posted speed of 45 mph in areas without signals and 35 mph in areas with signals.

Direct private access shall not be permitted if access to a lower category roadway can be provided. If access to the lower category road is deemed unsafe and negatively impacts operations as determined by the Allen County Engineer, then direct access may be allowed.

Direct private access to the Category III road should be limited to right-in and right-out movements only. Left turn movements may be permitted if the left turn does not have a potential for signalization, the movement(s) will not cause significant disruption nor pose a safety risk, and left turns will not interfere with the operation of the road or other property access. On divided highways, left turn movements shall not be permitted if there is not an existing median opening.

Deceleration and acceleration lanes may be used to enable vehicles to safely maneuver onto or from a high-speed facility. It is also suggested that corner radii be increased to allow for smoother operations and minimize impacts to the highway mainline. (Refer to Section 400 of the *ODOT Location and Design Manual, Volume 1.*)

Properties that have been legally split are entitled to and may apply for a separate access point. As part of the process in obtaining a lot split with LACRPC, the Allen County Engineer shall be consulted regarding access management requirements.

# 3.2.4. Category IV

**Function** - Category IV highways are designed and intended to provide access and mobility at moderate to high speeds and volumes for moderate to short distances in rural areas and low to medium speeds and volumes in urban areas for intercity, intra-city and intra-community travel. Category IV highways typically include low to moderate speed arterials, some major collectors, some minor collectors, and most local roads.

**Operational Standards** - On rural sections, signalized intersections should be spaced at a minimum of one (1) mile. One-half (1/2) mile spacing may be provided when no reasonable alternative access exists. On urban sections, signalized intersections should be spaced at a minimum of one-half (1/2) mile. One-quarter (1/4) mile spacing may be permitted when no reasonable alternative access exists.

Typically, Category IV highways are posted between 35 and 55 mph in rural areas and 25 to 45 mph in urban areas.

One (1) direct private access shall be permitted per parcel. Additional access may be provided if determined to not negatively impact the safety and operation of the highway or impact adjacent properties and access as determined by the Allen County Engineer. Where a parcel or property has access to a lesser-categorized street, any proposed access to a higher categorized roadway shall be treated as a request for additional access.

Direct private access shall allow for all current and projected turn movements provided they meet all safety, design and operational standards. A turning movement(s) may be restricted if determined that it may have a detrimental effect on traffic safety and operations.

Deceleration and acceleration lanes may be required to enable vehicles to safely maneuver onto or from a high-speed facility as necessary. It is also suggested that corner radii be increased to allow for smoother operations and minimize impacts to the highway mainline. (Refer to Section 400 of the ODOT Location and Design Manual, Volume 1.)

Properties that have been legally split are entitled to and may apply for a separate access point. As part of the process in obtaining a lot split with LACRPC, the Allen County Engineer shall be consulted regarding access management requirements.

Table 1 – Access Category Functions

Category	Traffic Function	Typical Speeds	Recommended Signal Spacing	Access Standards Summary
I	<ul> <li>High Speed</li> <li>High Volume</li> <li>Long Distance Through Traffic</li> <li>Interstate and Freeway Facilities</li> </ul>	55 MPH Minimum	N/A	<ul> <li>Access by interchanges only</li> <li>No direct private property access permitted</li> </ul>
II	<ul> <li>High Speed</li> <li>High Volume</li> <li>Long Distance Through Traffic</li> <li>Principal Rural Arterials, Major Urban Expressways</li> </ul>	50 MPH minimum without signals 45 MPH minimum with signals	1 Mile minimum preferred	<ul> <li>Access at interchange or public street intersection</li> <li>Private access discouraged</li> <li>One access drive per parcel</li> <li>Right-In and Right-Out design preferred</li> <li>Acceleration and Deceleration lanes should be used</li> <li>Unsignalized left turns "in" allowed if not detrimental to highway</li> <li>Access to lower category roadway preferred</li> </ul>
III	<ul> <li>Moderate to High Speeds</li> <li>Moderate to High Volumes</li> <li>Interregional, Intercity, Intra-city Travel</li> <li>Arterials, Major Collectors, Some Minor Collectors, Some Local Roads</li> </ul>	45 MPH minimum without signals 35 MPH minimum with signals	1 Mile minimum preferred in rural areas  ½ Mile minimum preferred in urban	<ul> <li>One access drive per parcel</li> <li>Right-In and Right-Out design preferred</li> <li>Acceleration and Deceleration lanes may be used</li> <li>Unsignalized Left Turn movement allowed if not detrimental to highway</li> <li>Access to lower category roadway preferred</li> </ul>
IV	<ul> <li>Moderate to High Speeds in Rural Areas</li> <li>Moderate to High Volumes in Rural Areas</li> <li>Low to Moderate Speeds in Urban Areas</li> <li>Low to Moderate Volumes in Urban Areas</li> <li>Intercity, Intra-city, Intra-community Travel</li> <li>Low to Moderate Speed Arterials, Some Major Collectors, Some Minor Collectors, Most Local Roads</li> </ul>	35 to 55 MPH in undeveloped areas 25 to 45 MPH in developed areas	areas  1 Mile minimum preferred in rural areas  ½ Mile minimum preferred in urban areas	<ul> <li>One access drive per parcel (two may be permitted, based on capacity)</li> <li>All movements permitted, if not deemed detrimental</li> <li>Acceleration and deceleration lanes may be used</li> <li>Turn movements may be restricted</li> <li>Access to lower category roadway preferred</li> </ul>

# 3.3 Township Road Inventory

Tables 2 through 13 provide the road inventory for each Township within Allen County. It should be noted that Township Roadways not listed are considered uncategorized local roads. All drives require an approved drive permit regardless of adjacent roadway category, where applicable.

**Table 2 - Amanda Township Road Inventory** 

Route	Section	Category
No Categorized Township Roadways.		

**Table 3 - American Township Road Inventory** 

Route	Section	Category
Bluelick Rd.	Cole St. to SR 65 (West St.)	III
Diller Rd.	SR 309 (Elida Rd.) to Eastown Rd.	IV
Diller Rd.	Eastown Rd. to Cole St.	III
Edgewood Dr.	Cable Rd. to Cole St.	IV

**Table 4 - Auglaize Township Road Inventory** 

Route	Section	Category
No Categorized Township Roadways.		

**Table 5 - Bath Township Road Inventory** 

Route	Section	Category
Neubrecht Rd.	SR 81 (Ada Rd.) to Bible Rd.	IV
Roush Rd.	Reservoir Rd. to SR 81 (Ada Rd.)	IV

**Table 6 - Jackson Township Road Inventory** 

Route	Section	Category
No Categorized Township Roadways.		

**Table 7 - Marion Township Road Inventory** 

Route	Section	Category
No Categorized Township Roadways.		

# **Table 8 - Monroe Township Road Inventory**

Route	Section	Category
No Categorized Township Roadways.		

# **Table 9 - Perry Township Road Inventory**

Route	Section	Category
Amherst Rd.	McClain Rd. to Greely Chapel Rd.	IV

# **Table 10 - Richland Township Road Inventory**

Route	Section	Category
No Categorized Township Roadways.		

# **Table 11 - Shawnee Township Road Inventory**

Route	Section	Category
No Categorized Township Roadways.		

# **Table 12 - Spencer Township Road Inventory**

Route	Section	Category
No Categorized Township Roadways.		

# **Table 13 - Sugar Creek Township Road Inventory**

Route	Section	Category	
No Categorized Towns	hip Roadways.		

# 3.4 Allen County Road Inventory

All County Roadways not listed are designated as Access Category IV as a minimum. Table 14 provides the road inventory for Allen County roadways that have been upgraded and designated as Access Category III. All drives require an approved drive permit regardless of adjacent roadway category.

Table 14 - Allen County Road Inventory - Access Category III

Route	Section	Category
Bible Rd.	Chapman Rd. to Slabtown Rd.	III
Bluelick Rd.	SR 65 (West St.) to Thayer Rd.	III
Breese Rd.	SR 501 (Wapak Rd.) to McClain Rd.	III
Buckeye Rd.	Ft. Amanda Rd. to McClain Rd.	III
Cable Rd.	SR 309 (Elida Rd.) to Diller Rd.	III
Cole St.	Diller Rd. to Bluelick Rd.	III
Cole St.	Current Lima Corporation Line to Robb Ave.	III
S. Dixie Highway	Hume Rd. to 7 <sup>th</sup> St.	III
Dixie Highway	SR 81 (Ada Rd.) to Slabtown Rd.	III
Eastown Rd.	SR 117 (Spencerville Rd.) to Diller Rd.	III
Elida Rd.	Current Delphos Corporation Line to SR 309	III
	(Elida Rd.)	
Elm St.	Copus Rd. to Cable Road	III
Ft. Amanda Rd.	SR 501 (Wapak Rd.) to Current Lima Corporation	III
	Line	
Greely Chapel Rd.	Hanthorn Rd. to SR 117 (Bellefontaine Rd.)	III
Hanthorn Rd.	McClain Rd. to Greely Chapel Rd.	III
McClain Rd.	Breese Rd. (southernmost section west of	III
	McClain Road) to 10 <sup>th</sup> St.	
Reservoir Rd.	Current Lima Corporation Line to Cool Rd.	III
Robb Ave.	SR 309 (Elida Rd.) to Cole St.	III
Robb Ave.	Current Lima Corporation Line to Sugar St.	III
Shawnee Rd.	Hume Rd. to SR 117 (Spencerville Rd.)	III
Slabtown Rd.	SR 81 (Ada Rd.) to Bible Rd.	III
Stewart Rd.	SR 81 (Findlay Rd.) to Bible Rd.	III
Sugar St.	SR 81 (Findlay Rd.) to Bluelick Rd.	III
Thayer Rd.	SR 309 (Harding Hwy.) to SR 81 (Ada Rd.)	Ш

#### 4 DESIGN STANDARDS AND SPECIFICATIONS

#### 4.1 Purpose

The information provided in this Section defines the standards and specifications to be used in conjunction with the Access Categories to protect the functional integrity of roads under the jurisdiction of Allen County and Townships to maintain and preserve traffic mobility, to provide efficient and reasonable access, and to protect the public health, safety, and welfare.

# 4.2 Use of Design Standards and Specifications

Access on a categorized County or Township road shall be designed in accordance with the standards and specifications presented herein with regard to location, design, and construction of the access, except as modified by a Traffic Impact Study (TIS). If the access is not able to meet the standards and specifications presented herein or as required by the TIS, the application will be denied, unless a variance is authorized in accordance with Section 2.8.

#### 4.3 Data Requirements

The most recent editions of the reference works cited in Section 1.4 will be used for the design standards presented herein.

For purposes of analysis under the standards of this section, the Design Hourly Volume (DHV) estimates for any access shall be based on the anticipated total build out of the development to be served by the access and a twenty year projection of highway background traffic volumes.

Typically, analysis of a proposed access will be based on weekday DHV for the AM or PM design hour (whichever is greater) or both. In special circumstances, weekend traffic volumes may be requested for developments that generate significantly larger traffic volumes on the weekend rather than the weekday. The determination will be made by the Allen County Traffic Impact Study Review Team (see Section 5.4).

Speed refers to the legal speed or 85<sup>th</sup> percentile speed, whichever is greater, at the access location at the time of the permit application.

All average daily traffic (ADT) and DHV directional distribution shall be allocated in a fashion acceptable to the reviewing authority.

At the request of the County Engineer or based on the thresholds discussed in Section 5.1 of the Plan, a TIS as outlined in Section 5 will be required to be submitted with the access permit application. It is strongly recommended that the applicant submit to the County, prior to preparing a TIS, their opinion of directional distribution and trip generation for approval.

# 4.4 Access Category Tables

This section and Tables 15 through 19 graphically represent the standards and specifications applied to various design features for Access Categories III and IV (County and Township roads which are covered by the Allen County Access Management Plan will fall only into these categories).

Access management techniques are highly dependent on the volumes experienced or predicted in the peak hour at intersecting driveways. The volumes in Table 15 shall be used to define access driveway usage for the purposes of the subsequent Access Category Charts.

Table 15 – Access Driveway Usage by Volume

Driveway Type	Abbreviation	Peak Hour Trip Ends	Examples
Minimal Use	MU Dr	Less than or equal to 5	Single family residence, field drive*
Low Volume	LV Dr	Greater than 5 but less than 100	General office building (< 1000 employees), new car dealership, day- care center
Medium Volume	MV Dr	Greater than 100 but less than 200	Drive through bank, convenience market with gas pumps
High Volume	HV Dr	Greater than or equal to 200	Fast food restaurant, discount store

\*Field drives providing access to agricultural parcels shall not be subjected to the requirements of this Plan. However, the owner requesting a proposed field drive shall obtain a Driveway Permit prior to construction. The location of all proposed field drives to agricultural parcels shall be approved by the Allen County Engineer using engineering judgment.

Table 16 provides minimum acceptable distances between drive locations and adjacent intersections. For all Access Categories, where two roads of different access levels intersect, the restrictions and distances of the higher-level roadway will apply along the lower classified roadway in determining the distances of driveways from an intersection.

Higher category roadways require increased driveway distances from intersections due to the higher volumes of traffic. Similarly, commercial and industrial developments (classified as Low Volume, Medium Volume, and High Volume Driveways in Table 15) generate more traffic than single family residences (classified as Minimal Use Driveways in Table 15) and require increased distances. Tables 16 and 17 reflect the differences between the driveway type uses.

Table 16 – Driveway Distances from Intersection by Classification

#### **Driveway Distances from an Intersection** (Clear distance measured between a line tangent to the near edge of intersection pavement to a line tangent to the near edge of driveway) High - Medium - Low Minimal Use Driveways \* **Volume Driveways** Higher Roadway Minimum Recommended Minimum Classification Distance (ft) Distance (ft) Distance (ft) Category I or 1000 1000 1000 500 500 250 Category III Category IV 250 250 125

<sup>\*</sup>Use recommended distance unless a documented reason is provided and agreed to by the Allen County Engineer based on engineering judgment. Driveways not meeting the minimum distances shown in Table 16 may request a variance.

Another critical component of maintaining roadway integrity is the spacing of driveways. Table 17, which is referenced in the category charts, provides minimum spacing between drives based on the posted speed of the road.

Table 17 – Driveway Spacing by Posted Speed

Driveway Spacing by Posted Speed (Clear spacing measured between a line tangent to the near edges of each driveway)						
Posted Speed	High - Medium - Low Volume Driveways	Minimal Use Dr	Use Driveways **			
(mph)	Minimum Distance (ft)	Recommended Distance (ft)	Minimum Distance (ft)			
25	155	155	50			
30	200	200	50			
35	250	250	50			
40	305	305	50			
45	360	360	50			
50	425	425	75			
55	495	495	100			

<sup>\*\*</sup>Use recommended distance unless a documented reason is provided and agreed to by the Allen County Engineer based on engineering judgment. Driveways not meeting the minimum spacing shown in Table 17 may request a variance.

# 4.4.1. Access Category III

The key below applies to Tables 18 and 19:

	Key	
<b>SSD</b> – Stopping sight distance		<b>HV Dr</b> – High volume drive
SSD – Stopping sight distance RTL – Right turn lane LTL – Left turn lane		MV Dr – Medium volume drive
LTL – Left turn lane		LV Dr – Low volume drive
RAL – Right acceleration lane LAL – Left acceleration lane		MU Dr – Minimal use drive
LAL – Left acceleration lane		<b>N/U</b> – Not Used

Table 18 – Access Category III – Access Features

Access Feature	Intersection	HV Dr	MV Dr	LV Dr	MU Dr	
Allowed	Yes	Yes <sup>(a)</sup>	Yes <sup>(a)</sup>	Yes <sup>(a)(b)</sup>	Yes <sup>(a)</sup>	
Spacing	(c)	½ Mile Rec.	SSD and Driveway Spacing Table 17 <sup>(f)</sup>	SSD and Driveway Spacing Table 17 <sup>(f)</sup>	Refer to Driveway Spacing Table 17	
Traffic Control	Signal – Refer to OMUTCD for warrant analysis	Signal – Refer to OMUTCD for warrant analysis	Stop	Stop	Stop	
Traffic Movement	Full	Full <sup>(g)</sup>	Full <sup>(g)</sup>	Full <sup>(g)</sup>	Full <sup>(g)</sup>	
RTL	(h)	(h)	(h)	(h)	N/A	
LTL	(h)	(h)	(h)	(h)	N/A	
RAL	N/U	N/U	N/U	N/U	N/U	
LAL	N/U	N/U	N/U	N/U	N/U	

#### Notes

- One direct private access shall be permitted per parcel. Additional access may be permitted if (1) the access would not adversely affect the safety and operation of the highway, and (2) is necessary for the safe and efficient use of the property, and (3) would not adversely affect access to adjacent properties.
- (b) Low volume drives are discouraged on high speed (>50 mph) roadways. Where there is an opportunity on high speed roadways, low volume drives should be consolidated and combined using appropriate means such as service roads, cross easements, and joint access to reduce the number of access points.
- (c) One-mile spacing is recommended on rural highway sections and one-half mile spacing is allowed when there is no reasonable alternative access to a general street system. One-half mile spacing is recommended on urban highway sections and one-quarter mile spacing is allowed when there is no reasonable alternative access to the general street system.
- (d) If one-half mile spacing cannot be achieved, then the restrictions of SSD and the minimum driveway spacing for High Volume Driveways listed in Table 17 will apply.
- (e) If one-quarter mile spacing cannot be achieved, then the restrictions of SSD and the minimum driveway spacing for High Volume Driveways listed in Table 17 will apply.
- (f) Spacing shall be determined using the greatest value identified for SSD and the minimum driveway spacing based on the posted speed limit.
- (g) All movements permitted if not deemed detrimental; certain movements may be restricted due to operational and safety considerations. Left turn movements may be prohibited if such movements cannot meet safety, design, and operational standards.

(h) The need for auxiliary lanes will be determined using the Auxiliary Lane Graphs in Section 4.5. Their design, if required, will be based on Figures 401-7 and 401-8 of the ODOT Location and Design Manual, Volume 1.

# 4.4.2. Access Category IV

**Table 19 – Access Category IV – Access Features** 

Access Feature	Intersection	HV Dr	MV Dr	LV Dr	MU Dr	
Allowed	Yes	Yes <sup>(a)</sup>	Yes <sup>(a)</sup>	Yes <sup>(a)(b)</sup>	Yes <sup>(a)</sup>	
Spacing	(c)	1/4 Mile Rec. SSD and Driveway Spacing Table		SSD and Driveway Spacing Table 17 <sup>(f)</sup>	Refer to Driveway Spacing Table 17	
Traffic Control	Signal – Refer to OMUTCD for warrant analysis	Signal – Refer to OMUTCD for warrant analysis	Stop	Stop	Stop	
Traffic Movement	Full	Full <sup>(g)</sup>	Full <sup>(g)</sup>	Full <sup>(g)</sup>	Full <sup>(g)</sup>	
RTL	(h)	(h)	(h)	(h)	N/A	
LTL	(h)	(h)	(h)	(h)	N/A	
RAL	N/U	N/U	N/U	N/U	N/U	
LAL	N/U	N/U	N/U	N/U	N/U	

#### Notes

- (a) One direct private access shall be permitted per parcel. Additional access may be permitted if (1) the access would not adversely affect the safety and operation of the highway, and (2) is necessary for the safe and efficient use of the property, and (3) would not adversely affect access to adjacent properties.
- (b) Low volume drives are discouraged on high speed (>50 mph) roadways. Where there is an opportunity on high speed roadways, low volume drives should be consolidated and combined using appropriate means such as service roads, cross easements, and joint access to reduce the number of access points.
- (c) One-mile spacing is recommended on rural highway sections and one-half mile spacing is allowed when there is no reasonable alternative access to a general street system. One-half mile spacing is recommended on urban highway sections and one-quarter mile spacing is allowed when there is no reasonable alternative access to the general street system.
- (d) If one-half mile spacing cannot be achieved, then the restrictions of SSD and the minimum driveway spacing for High Volume Driveways listed in Table 17 will apply.
- (e) If one-quarter mile spacing cannot be achieved, then the restrictions of SSD and the minimum driveway spacing for High Volume Driveways listed in Table 17 will apply.

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- Spacing shall be determined using the greatest value identified for SSD and the minimum driveway spacing based on the posted speed limit.
- (g) All movements permitted if not deemed detrimental; certain movements may be restricted due to operational and safety considerations. Left turn movements may be prohibited if such movements cannot meet safety, design, and operational standards.
- (h) The need for auxiliary lanes will be determined using the Auxiliary Lane Graphs in Section 4.5. Their design, if required, will be based on Figures 401-7 and 401-8 of the ODOT Location and Design Manual, Volume 1.

# 4.5 Auxiliary Lane Graphs

# 4.5.1. Category III and IV

The Auxiliary Lane Graphs provided in Figures 4 through 10 are used to determine when a separate turn lane is needed for unsignalized drives.

**Left Turn Lane Warrants: Two-Lane Highways** - Two graphs are provided for Left Turn Warrants on two-lane highways: one for high-speed conditions (greater than 40 mph posted speed) and one for low speed conditions (less than or equal to 40 mph posted speed).

The curve indicates the percentage of turning vehicles. Actual turn percentage for the case being analyzed should be interpolated using the provided curves as a guide. Any plot points that lie beyond the provided curves should be interpolated to determine if the turn lane is warranted. Note that for two-lane highways, the advancing traffic volume includes the left turn lane volume.

Left Turn Lane Warrants: Four-Lane Highways - Warrants for left turn lanes are based solely on left-turning vehicle volume and the opposing traffic volume. Two curves are provided for divided and undivided four-lane highways. A highway is considered divided as long as median width is adequate to store a left turning vehicle without impeding the progress of vehicles in the adjacent through lane.

**Right Turn Lane Warrants** - Separate graphs are provided for right turn lanes for a two-lane and a four-lane highway at 40 mph or less and for a two-lane and four-lane highway over 40 mph.

The curve indicates the turn percentage. Actual turn percentage for the case being analyzed should be interpolated using the provided curves as a guide. Any plot points that lie beyond the provided curves should likewise be interpolated to determine if the turn lane is warranted.

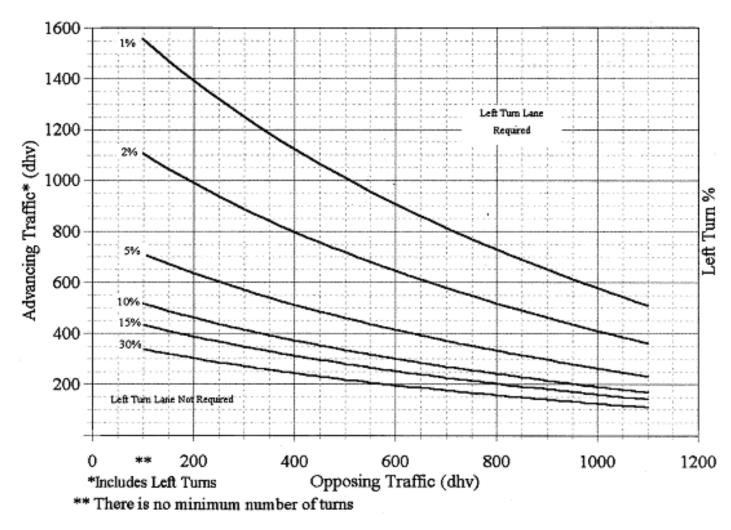


Figure 4 – 2-Lane Highway Left Turn Lane Warrant (=<40 mph or 70 kph Posted Speed)

Left Turn Lane Required Advancing Traffic\* (dhv) 1% Turn 5% 10% 15% 30% Left Turn Lane Not Required 1000 1100 1200 \*Includes Left Turns Opposing Traffic (dhv)

Figure 5 – 2-Lane Highway Left Turn Lane Warrant (>40 mph or 70 kph Posted Speed)

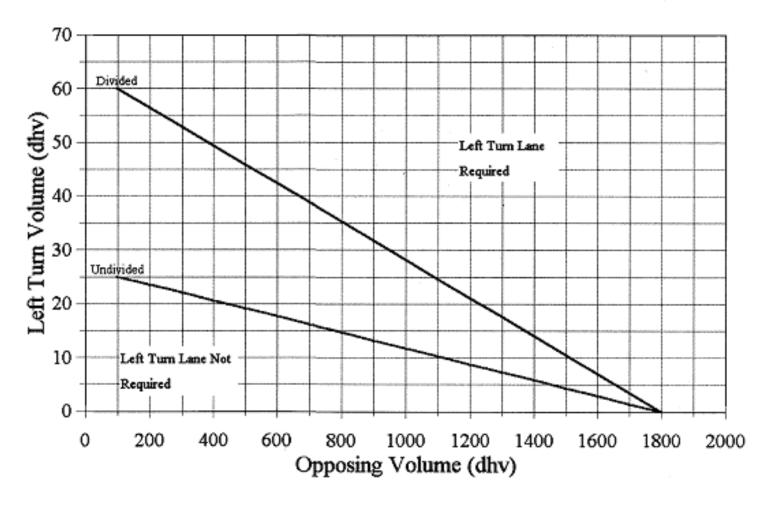
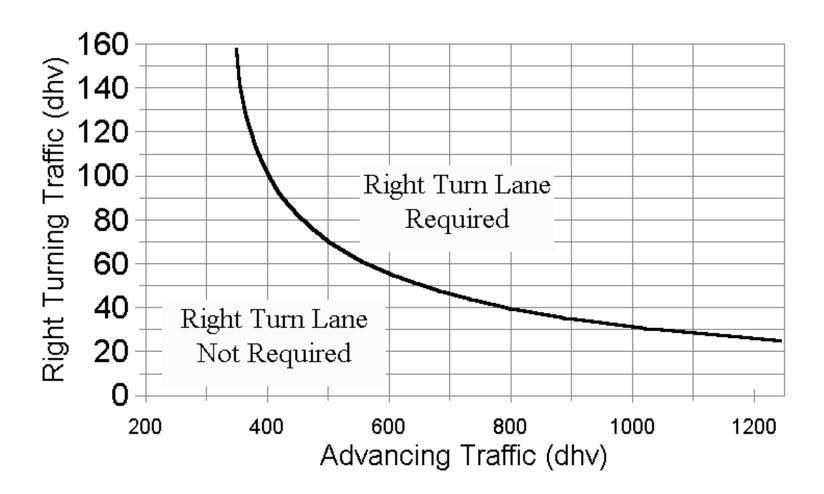


Figure 6 – 4-Lane Highway Left Turn Lane Warrant

Figure 7 – 2-Lane Highway Right Turn Lane Warrant (=<40 mph or 70 kph Posted Speed)



120 Right Turning Traffic (dhv) 100 80 Right Turn Lane 60 Required 40 20 Right Turn Lane Not Required 200 400 600 1000 1200 800 Advancing Traffic (dhv)

Figure 8 – 2-Lane Highway Right Turn Lane Warrant (>40 mph or 70 kph Posted Speed)

Figure 9 – 4-Lane Highway Right Turn Lane Warrant (=<40 mph or 70 kph Posted Speed)

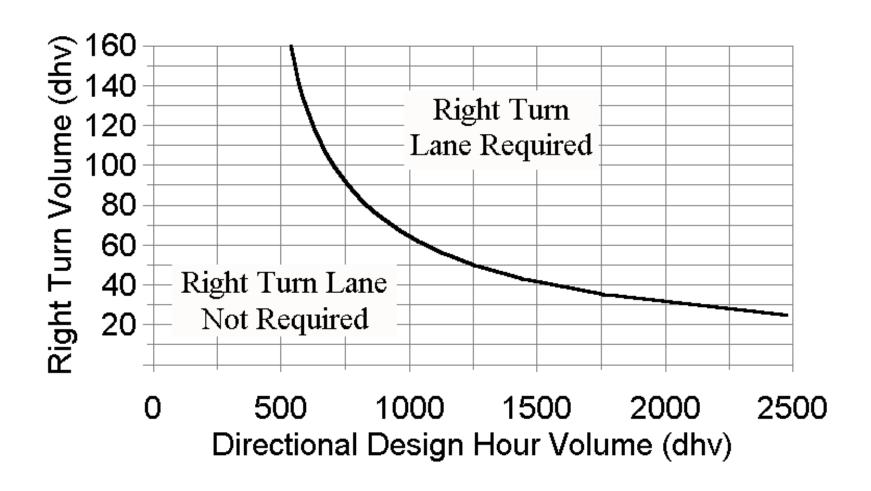
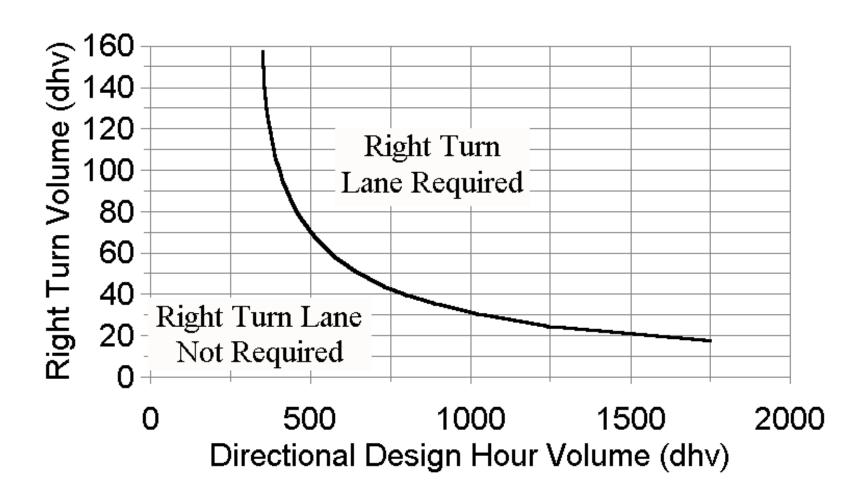


Figure 10 – 4-Lane Highway Right Turn Lane Warrant (>40 mph or 70 kph Posted Speed)



# 4.6 Driveway Geometry

## 4.6.1. Driveway Types

**Farm or Field Drives** – A driveway providing access to an agricultural tract of land.

**Residential** - A driveway providing access to a single-family residence.

**Residential, Multiple** – A driveway providing access to multiple single family residences or an apartment building containing not more than four dwelling units.

**Commercial** – A driveway providing access to an office, business, retail or institutional building, or residential facility with greater than four dwelling units. These facilities may be serviced by occasional trucks.

Industrial/Retail — A driveway directly serving a large number of trucks (greater than or equal to 10 trucks per day). A centralized retail development, such as a regional or community shopping center, may have one or more driveways, specially designed, signed and located to provide access for trucks.

## 4.6.2. Driveway Locations

- Driveways shall be located in accordance with applicable sight distance requirements (SSD, Intersection Sight Distance, or Decision Sight Distance) as contained in Section 200 of the ODOT Location & Design Manual, or as stated here in the Plan.
- Driveways shall be located where they will not create an offset intersection opposite an existing street, highway or other drive.

## 4.6.3. <u>Driveway Geometrics</u>

- Two-way driveways shall intersect the highway at an optimum angle of 90 degrees and a minimal angle of 70 degrees. One-way operating driveways shall not have an angle less than 45 degrees.
- Driveway widths and radii will be determined by the number and use of lanes on the driveway, and the design vehicle chosen for the driveway.
   The width and radii shall permit vehicles to enter and exit with a minimum of interference to mainline traffic, yet be restrictive enough to discourage erratic or unwanted maneuvers.
- Table 20 provides the recommended driveway dimensions based on the Driveway Type and Design Vehicle.

- Drives shall not be obstructed within the right of way by gates, or similar obstacles.
- Driveways that enter a public roadway at traffic signals shall have the number of lanes as determined by a capacity analysis.
- In applying the turning radius values from Table 20, it should be noted that the radius used at a given driveway is meaningful only when related to the width of the throat. When choosing a radius, the designer must take into consideration the turning limitations of the design vehicle and the driveway width. To reduce turning conflicts and encroachments on traveled lanes and the opposing driveway lanes, turning templates shall be used to evaluate all turning movements and to ensure adequate radius-throat width combinations. The design vehicle's swept path shall be the minimum.
- As an example, using the values from Table 20, a commercial two-way drive with a 35-foot radius would have a minimum width of 26 feet. However, if the radius were decreased, a wider drive width would be required to accommodate the turning path of a SU-30 vehicle.
- Driveway radii may be reduced on any roadway with on street parking.
   The turning radius would be measured from the edge of the through lane.

Table 20 - Recommended Driveway Dimensions

	Farm,	/Field Reside		ential	Commercial		Industrial/Retail	
Design Vehicle	SU		Р		SU-30		WB-62/WB-67	
Nominal Width	Min (Feet)	Max (Feet)	Min (Feet)	Max (Feet)	Min (Feet)	Max (Feet)	Min (Feet)	Max (Feet)
One-Way	-	-	12	14	14	20	14	26
Two-Way	14	20	12	24	26	36	26	36
RT Radius	25	35	15	25	25	35	50	75

Note: Drive widths may be increased due to proposed multiple exiting lanes.

#### Key

SU – Single Unit Truck (8.5 foot width and 19 foot length)

P - Passenger car (7 foot width and 19 foot length)

SU-30 – Single Unit Truck (8.5 foot width and 30 foot length)

WB-62 – Interstate Semitrailer (8.5 foot width and 69 foot length)

WB-67 – Interstate Semitrailer (8.5 foot width and 74 foot length)

RT Radius - Right turn radius

# 4.6.4. <u>Driveway Islands</u>

In some situations, it is desirable to control or prohibit certain movements through the use of median islands or channelizing islands.

**Median Islands** - A median island is a curbed island which prevents cross movement of internal traffic near the driveway approach.

- Median Islands shall be at least 6 feet wide.
- All median islands shall be offset a minimum of 12 feet from the edge line of the intersecting road. All median islands shall have a minimum length of 100 feet.
- The nose of a median island shall taper in height from 2" to 6" over a distance of 4 feet or greater.

**Channelizing Islands** - Channelizing islands are used to control and direct traffic movements on an intersection approach. A properly designed channelizing island will designate the correct turning path and define the merge area thus reducing conflicting movements (see Figures 11-14). The geometry shall physically define the permitted movements and block the prohibited movements. Careful consideration should be made in design of the island to accommodate design vehicles likely to use the driveway.

The island diagrams are intended to provide a standard practice for design of such islands on highways under County jurisdiction. While not every possible case was developed here, they do show recommended throat widths for passenger car and truck usages, relationship between the island with curbed and uncurbed highways, three curve radius to maximize the turning radius while minimizing overall width of the drive approach, and islands sized to balance their purpose of discouraging prohibited movements with minimizing space requirements.

Figure 11 is intended for use in restricted right-of-way conditions or when truck usage is unlikely or prohibited. Figure 12 is intended for normal or general usage where occasional trucks may enter or exit. Figure 13 is intended for predominant or exclusive truck use. Figure 14 is intended to show how the islands can be modified to enable left turn movements by

exiting vehicles. The islands can be similarly modified to permit left-in movements using the same principle.

- Channelizing Islands shall be considered on arterials without a median where left turns are being restricted and on one-way streets to discourage wrong way turns.
- Channelizing Islands shall be at least 100 square feet.
- All Channelizing Islands shall be offset at least 4 feet from the edge of the traveled lane to the face of curb or the width of the paved curbed shoulder, whichever is greater, on high-speed roadways or where the approach roadway is uncurbed.

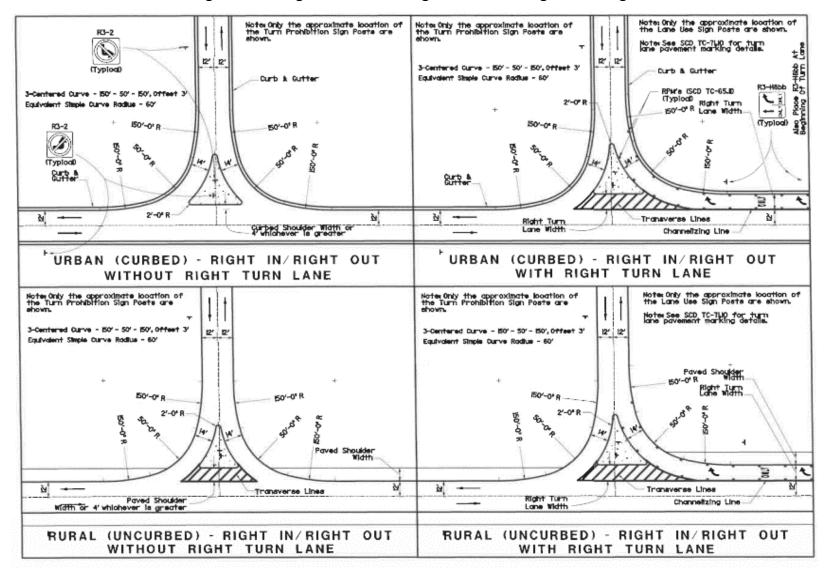


Figure 11 - Designs for Channelizing Islands - Passenger Car Designs

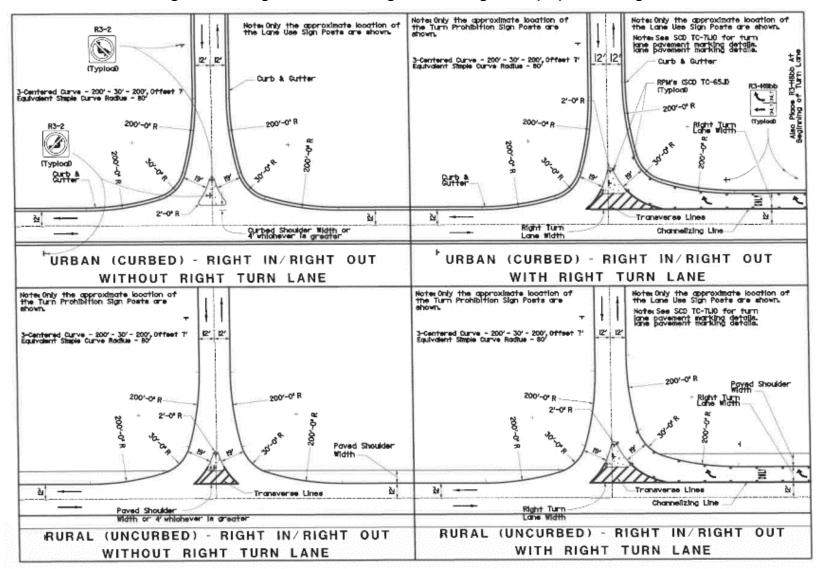


Figure 12 - Designs for Channelizing Islands - Single Unit (SU) Truck Designs

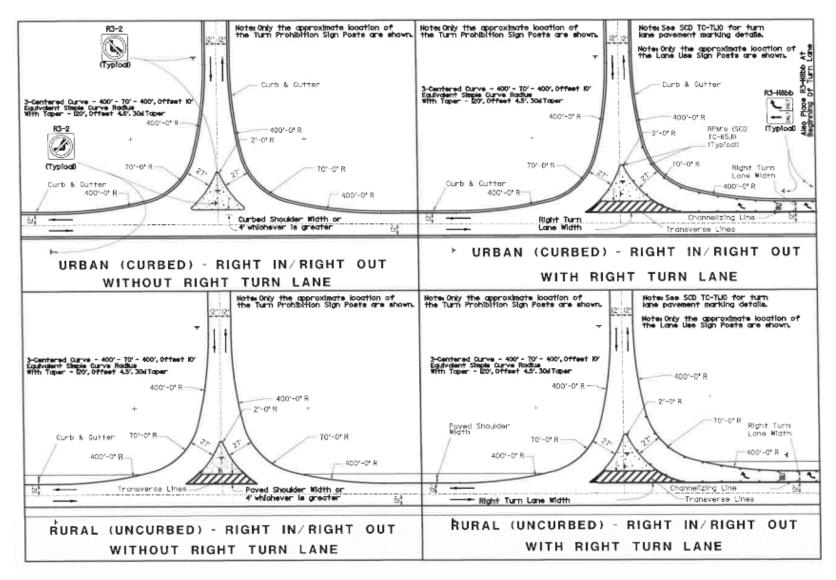


Figure 13 – Designs for Channelizing Islands – WB-62 and WB-67 Truck Designs

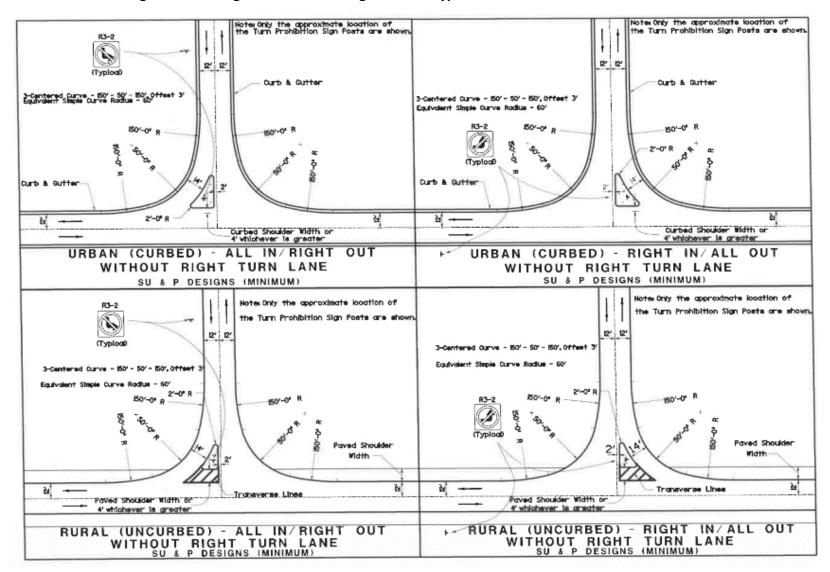


Figure 14 – Designs for Channelizing Islands – Typical Islands with Permitted Left Turns

# 4.6.5. Driveway Profile

The profile of a driveway can greatly affect the operation of a driveway. It shall be designed to provide a smooth and safe transition for its users.

- The maximum grade for commercial and industrial driveways shall be 8%;
   however, grades of 1% 3% are preferred for major driveways.
- For residential driveways, a maximum grade of 10% will be allowed with a 3% 6% range preferred.
- All grade breaks and vertical curves shall accommodate the design vehicles expected to use the driveway.
- Drive profiles on uncurbed roadways shall slope down and away from the pavement edge at the same slope as the graded shoulder.

# 4.6.6. Driveway Cross Slope

Within the clear zone, the side slopes in relation to the driveway shall be consistent with the grading of the facility. Refer to the Allen County standard construction drawings on file at the Allen County Engineer's office.

# 4.6.7. <u>Driveway Pavement</u>

Refer to the Standard Construction Drawings maintained by the Allen County Engineer's Office.

#### 5 TRAFFIC IMPACT STUDY

## 5.1 Need for Traffic Impact Study

Regardless of the County and Township roadway category, a Traffic Impact Study (TIS) shall be required if any of the following criteria are satisfied:

- 1. The proposed development generates more than 100 vehicle trip ends during the peak hour. The vehicle trip ends are the total of entering and exiting traffic at full 20-year build out and occupancy. For developments that generate less than 100 vehicle trip ends, a turn-lane warrant analysis may be required.
- 2. The proposed development driveway is located within an area identified by ODOT's Highway Safety Program or the County Engineer as a safety problem area or accident location.
- 3. The proposed development driveway is within a location identified by ODOT or the County Engineer as a congested traffic area.

# 5.2 Purpose of TIS

The purpose of a TIS is to evaluate the effects of a proposed development on the existing roadway network and determine the need for any improvements to the network to maintain a satisfactory level of service.

This document provides guidelines for the preparation of a TIS for developments located along County or Township roads within Allen County, Ohio. These guidelines apply to new developments and may also be used to determine the effects of significant changes to an existing development such as change in land use, redevelopment, relocation of driveways, or expansion of existing facilities.

# 5.3 Design Years

The TIS shall be performed for opening day, full build-out (if full build-out occurs before the 20-year horizon), and the 20-year horizon from opening day if possible. If the proposed development has a multi-phase build-out, each major phase shall be analyzed also.

In general, the TIS shall be performed for an average weekday peak period; however, some types of development may warrant the need for additional analysis periods. If the development does not have the typical peaking characteristics of the adjacent roadway, i.e. development peak hours are not 7-9 a.m. and 4-6 p.m. on an average weekday, then additional analyses shall be performed for the development's peak hour. Examples of such types of developments include, but are not limited to, shopping centers, discount superstores, movie complexes, restaurants, sports complexes, schools, and churches.

#### 5.4 TIS Review Team

The TIS shall be reviewed by a transportation engineering professional from the Allen County Engineer's staff. The reviewer shall have expertise in traffic engineering, traffic operations, and transportation planning. At the discretion of the reviewer, the TIS may be reviewed by other professionals such as independent consultants; ODOT District 1; or the Lima Allen County Regional Planning Commission (LACRPC).

#### 5.5 Review Procedures

The TIS Review Team shall evaluate if the access proposal is permissible under the highway's assigned access category and consistent with the standards and requirements of the Allen County Access Management Plan. If the access usage meets the conditions for a TIS, the Review Team shall analyze the appropriate location, spacing, and design of the proposed access connections(s).

If a preliminary meeting as described in Section 2.3.6 was not held with the applicant, the Review Team may meet with the applicant and appropriate local officials to review the proposal and determine the need and/or define the scope of a TIS in accordance with Section 5.6.

The Review Team may recommend alternative access schemes or modifications to the access proposal consistent with the operational and safety requirements of the highway.

The Review Team may determine if any proposed access connections are located within or near a high accident location identified by ODOT's Highway Safety Program or County Engineer, within or near any programmed projects, and shall evaluate the impacts of all access alternatives in the context of these locations.

After traffic growth rates are obtained or approved, the Review Team shall give written notification to the applicant whether a traffic impact study must be completed before a valid access permit can be approved and issued.

## 5.6 Traffic Impact Study Requirements

# 5.6.1. Study Area

The minimum study area to be analyzed in the TIS shall include all proposed development driveways, adjacent roadways, adjacent intersections, and the first existing intersection with a numbered public route in each direction (excluding any roadways to be dedicated as part of the development). The minimum study area may be expanded at the direction of the reviewer based on development size, specific site conditions, and/or local and regional issues.

The TIS preparer may present more than one alternative for the proposed driveway locations to determine the most feasible driveway configuration. The TIS shall present a complete analysis for each alternative studied.

#### 5.6.2. Study Conditions

The TIS shall examine "before and after" conditions in order to evaluate the traffic impacts associated with the development for the study horizon years and time periods mentioned. The before or "base" traffic shall be based on the existing conditions within the study area without the subject development. The after or "proposed" traffic shall include the "base" traffic plus the amount of traffic generated by the subject development.

## 5.6.3. Design Hour Volume

All analyses shall examine the design hour traffic volume for the adjacent roadway and the peak hour(s) traffic volume of the proposed development.

# 5.6.4. <u>Trip Generation</u>

Opening day traffic volumes for the proposed development shall be calculated using the most current edition of the ITE Trip Generation Manual methodologies. The study shall calculate the Design Year traffic volume in accordance with Section 5.3.

## 5.6.5. Growth Rates

Traffic growth rates per LACRPC shall be used in the preparation of the study.

## 5.6.6. Before Conditions

The study must determine the existing serviceability of the adjacent roadway system including all intersections within the study area as defined in accordance with Section 5.6.1

## 5.6.7. <u>Signal Warrant Analyses</u>

Signal Warrant Analyses shall be conducted at all multi-movement access points considered in each alternative scheme. Any access, which meets signal warrant thresholds but does not otherwise meet spacing requirements and standards as established for the access category may be required to be redesigned, reconstructed, and/or relocated. The study should evaluate the feasibility of coordinating any proposed signals with other existing signals within the study area to achieve desired traffic progression.

# 5.6.8. After Conditions

The study must evaluate the proposed development's impacts on the adjacent and nearby highway network as defined by the study area. The study should document the incremental capacity and safety impacts on all roadway facilities within the study area for each access alternative, both for opening year and design year traffic. For identified high accident locations, the study should evaluate the expected impact of the development on the accident patterns at those locations.

# 5.6.9. <u>Design Criteria</u>

Operational design criteria shall be in accordance with the latest applicable ODOT manuals and specifications.

## 5.6.10. <u>Level of Service</u>

The study should recommend adoption of the access scheme which provides the safest and most efficient level of service consistent with the purpose, requirements, and design standards of the Allen County Access Management Plan. The recommended access scheme should not aggravate an existing safety problem nor degrade the existing level of service of the highway.

## 5.6.11. TIS Submission

A minimum of three (3) copies of the TIS shall be provided to the Allen County Engineer.

#### 5.7 Review Time Guidelines

It is the Allen County Engineer's goal to review a TIS within thirty (30) working days of the date of receipt of a TIS acceptable to the Allen County Engineer, provided that the following conditions are met:

- 1. The cost of construction is either entirely or primarily funded by the applicant.
- 2. The documents, plans, reports, access schemes, traffic study, and other material relating to the proposed access or any modifications thereto are deemed adequate, in the Allen County Engineer's opinion, to allow a complete and thorough assessment of the proposed development's impact on the highway system and comply with all design development criteria of Allen County, Ohio Department of Transportation, and the Federal Highway Administration, if applicable.

If any of the material described in Section 5.6 is determined to be deficient, the applicant shall be given notification of the problem and the criteria that are not satisfied. The applicant shall have an opportunity to correct the deficiencies and to

resubmit the material. Upon receipt of the resubmittal, the Allen County Engineer shall review the material and determine if the deficiencies have been corrected. If the material is judged acceptable, final action shall be completed on the access application within thirty (30) working days. If the resubmitted material is still judged deficient, the procedure established in this section shall be repeated until the modification is acceptable.

After receiving the recommendations of all reviewing authorities and after other acceptable requirements of local, state, and/or federal regulations are completed to the Allen County Engineer's satisfaction, and based on the results of the TIS, the Allen County Engineer shall either approve the access request as proposed, require design modifications as appropriate and necessary, restrict one or more turn movements as necessary to reduce traffic and safety impacts, or deny the access request, consistent with the standards and provisions contained within the Plan and other local and state applicable regulations.

# 5.8 Access Plan Development

Upon approval of the TIS, the Allen County Engineer or his appointed representative shall notify the applicant to proceed with the access permit for site development to implement the recommended access scheme and any other improvements indicated by the TIS.

Construction plans for implementation of the recommended access scheme shall be prepared in accordance with the latest applicable design standards and reviewed by the Allen County Engineer for conformance.

The Allen County Engineer shall initiate any special agreements for work to be performed by the applicant, in accordance with the TIS and the access plan, involving construction, reconstruction, or modification of significant portions of the highway infrastructure such as pavement, embankment, or drainage; and for all other work including installation or modification of a traffic control signal. Agreements shall be reviewed and approved by the Allen County Engineer's office.

If work involves installing a new or modifying an existing traffic control signal, a signal agreement shall be required for approval. Any new or modified signal must be approved by the agency having jurisdiction over the signal.

After review, concurrence, and approval, all agreements must be signed first by the applicant. The authorization of the Allen County Engineer or his appointed representative is then obtained, and finally copies of the signed agreements are provided to the applicant.

# 5.9 Permit Approval

A valid access permit shall not be issued until the conditions of Sections 2.5, 5.6, and 5.8 are satisfied. No construction shall begin until valid access and drive permits are issued.

